

**REMARKS**

Consideration of the above amendment is respectfully requested because it is supported by the specification, does not add any new material and is filed prior to any consideration by the Patent Office.

Respectfully submitted,

A handwritten signature in cursive script that reads "Dale Lischer".

Dale Lischer  
Reg. No. 28,438  
Attorney for Applicant

Dated: June 29, 2001  
SMITH, GAMBRELL & RUSSELL, LLP  
Suite 3100, Promenade II  
1230 Peachtree Street, NE  
Atlanta, GA 30309-3592  
Phone: (404) 815-3741

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

CLAIMS

AJ  
1/ A method of viewing a garment made up of garment pieces, represented by data stored in a memory of a computer[ (119)], and having seam lines, on a dummy model having a surface represented by data stored in a memory of a computer[ (119)], said method comprising:

placing the garment pieces [(30, 34, 36, 38, 40, 44, 50) ]on[ the surface of the dummy model (32, 42) or on a surface (48) derived from] the surface of the dummy model;

joining together the garment pieces along their seam lines; and

relaxing each garment piece from its position on the surface of the dummy model to its equilibrium position on the dummy model.

2/ [A]The method according to claim 1, wherein the garment pieces [being]are placed on the surface of the dummy model by establishing a bijective and continuous relationship between at least a portion of a garment piece and a corresponding portion of the surface of the dummy model.

3/ [A]The method according to claim [1 or ]2, wherein the garment pieces [being]are placed on the surface of the dummy model by establishing a bijective and continuous relationship between points representative of a garment piece and points on a corresponding portion of the surface of the dummy model.

4/ [A]The method according to claim [2 or 3,]2, wherein the establishing of a bijective and continuous relationship between a garment piece and a corresponding portion of the surface of the dummy model [comprising]comprises:

selecting a portion of the dummy model that corresponds topologically or is topologically homologous, to the garment piece;

projecting said portion of the dummy model on a plane; and

deforming the piece to bring it to coincide with said projection.

5/ [A]The method according to claim 4, in which:

a triangulation of the garment piece is performed; and

the triangulation of the piece is deformed to bring it to coincide with said projection.

6/ [A]The method according to claim 5, the triangulation of the piece being deformed by:

displacing points defining an outline of the piece to points on an outline of said projection; and

displacing the points that are vertices of triangles within the outline of the piece.

7/ [A]The method according to claim [5 or 6,]5, the triangulation being deformed while satisfying a constraint whereby the triangles of the triangulation of the piece [must]are not [be] turned over.

8/ [A]The method according to [any one of claims 1 to 7,]claim 1, wherein the relaxing of a garment piece [comprising]comprises:

subdividing the garment piece into a first set of portions; and

deforming said set of portions while minimizing an energy function of the garment piece.

9/ [A]The method according to claim 8, wherein the relaxing of the garment piece further comprising:

subdividing the garment piece into a second set of portions that are smaller than the portions of the first set; and

deforming the second set of portions while minimizing an energy function of the garment piece.

10/ [A]The method according to claim [8 or 9,]8, wherein the energy function [representing]represents the traction energy of the garment piece.

11/ [A]The method according [to any one of claims 8 to 10,]claim 8, wherein the energy function of the garment piece [being]is computed relative to the position of the piece in two dimensions, and as a function of a value for the stiffness K of a fabric.

12/ [A]The method according to [any one of claims 8 to 11,]claim 8, wherein the deforming of the sets of portions [comprising]comprises:

a displacement along field lines coming from the dummy model; and

a displacement along the surface of the fabric, in the other directions.

13/ [A]The method according to claim 12, wherein data corresponding to the field lines [being]is pre-stored.

14/ [A]The method according to [any one of claims 9 to 13,]claim 9, wherein the portions of the first and second sets of portions [being]are connected zones of the garment piece.

15/ [A]The method according to [any preceding ]claim[,]1, wherein a garment piece [being]is provided with a dart cut [(40)] which is closed prior to placing said piece on the surface of the dummy model[(32)].

16/ [A]The method according to [any preceding ]claim[,]1, wherein two garment pieces [(34, 36) being]are joined together prior to placing them on the surface of the dummy model[ (32)].

17/ [A]The method according to [any preceding ]claim[,]1, wherein one of the garment pieces [(40) being]is subdivided into at least two subpieces before being placed on the surface of the dummy model[ (42)].

18/ [A]The method according to [any preceding ]claim[,]1, further comprising:

- selecting one of the relaxed garment pieces referred to as a ["]piece to be replaced["];
- selecting another garment piece referred to as a ["]replacement piece["];
- placing the replacement piece on the surface of the dummy model;
- joining the replacement piece to the other pieces along its seam lines, where applicable; and

relaxing all of the garment pieces from their position on the surface of the dummy to their equilibrium position on the dummy model.

19/ [A]The method according to [any preceding ]claim[,]1, further comprising:

- selecting one of the relaxed garment pieces referred to as a ["]piece to be modified["];
- modifying said piece;
- placing said piece as modified on the surface of the dummy model;
- joining the modified piece to the other pieces along its seam lines, where applicable;

and

relaxing all of the pieces of the garment from their position on the surface of the dummy to their equilibrium position on the dummy model.

20/ [A]The method according to [any preceding ]claim[,]1, further comprising a step of mechanically simulating the garment.

21/ A method of making garment pieces, said method comprising:

- pre-viewing the garment on a dummy model using a method according to [any one of claims]claim 1[ to 20]; and
- making the pieces of the garment.

22/ [Apparatus]An [(119)]apparatus for viewing garment pieces on a dummy model having a surface, said apparatus comprising:

computer means [(120, 126, 128, 132) ]for:

- placing garment pieces on[ the surface of the dummy model or on a surface derived from] the surface of the dummy model;

joining together the garment pieces along their seam lines; and  
relaxing the pieces of the garment from their position on the  
surface of the dummy model to their equilibrium position on  
the dummy model;

and

viewing means [(122)] for viewing the dummy model and the garment pieces on the  
dummy model.

23/ [Apparatus] The apparatus according to claim 22, further [making it possible to  
preview] having means for previewing the selected dummy model [and/] or the selected  
garment pieces.

[4/ Apparatus] 24/ The apparatus according to claim [22 or 23,] 22, further comprising means[  
(24, 125)] for modifying a selected garment piece or for replacing a garment piece with  
another garment piece.

25/ [Apparatus] The apparatus according to [any one of claims 22 to 24,] claim 22, further  
comprising means[ (124, 125)] for selecting garment pieces from a pre-established garment  
database.

26/ [Apparatus] The apparatus according to [any one of claims 22 to 25,] claim 22, further  
comprising means [(124, 125)] for selecting a dummy model from a pre-established dummy  
model database.

27/ [Apparatus] The apparatus according to [any one of claims 22 to 26,] claim 22, further  
comprising means for storing data relating to the garment pieces and/or to the dummy model.

28/ [Apparatus] An apparatus for making garment pieces, the apparatus comprising:  
viewing apparatus [(119)] according to [any one of claims] claim 22 [to 28];  
cutting-out means[ (136, 138, 140, 150)] for cutting out garment pieces; and  
data-transmission means[ (146)] for transmitting data between the viewing apparatus  
[(119)] and the cutting-out means for cutting out the garment pieces.

29/ [Apparatus] The apparatus according to claim 28, the cutting-out means[ (140, 150)] for  
cutting out the garment pieces being controlled by a microcomputer[ (142)], and the data-  
transmission means[ (146)] interconnecting the viewing apparatus [(119)] and the micro-  
computer.

**LECTRA U.S. SERIAL NO. 09/857685**

30/ [Apparatus]The apparatus according to claim [28 or 29,]28, the [datatransmission]data transmission means[ (146)] being part of a communications network.